

CNTX

ADVANCED CONTRAST SENSOR

Increase process throughput with high-speed, accurate and reliable contrast differentiation. The CNTX™ combines a broad-spectrum light source, small spot size and fast response to achieve high-speed contrast differentiation of both neutral and color targets. The CNTX employs our field-proven, patented technology, for effective detection of registration marks, glossy surfaces, cap inserts, date codes and sorting of product by color in many industrial applications. The metal alloy case and glass lens provide robust construction expected in an industrial environment.

The CNTX features a 2-digit display that provides an indication of signal strength making set-up and integration quick and easy. The versatile sensor provides user set-up parameters including light source intensity adjustment, detection threshold and gain selection making the CNTX useful in a wide range of applications.

The CNTX includes both a discrete PNP/NPN output and an analog output. The discrete output is automatically set for PNP or NPN operation. The analog output signal may be used to access targets based on their reflectance characteristics.

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Applications

- Sort products by color
- Detect registration marks
- Confirm presence of date codes
- Detection of glossy surfaces
- Detects cap inserts

Design & Features

- 0.5mm or 3.0mm spot size
- 25uS response time
- Display range 00-50
- Broad spectrum white LED
- Adjustable LED intensity
- Two gain settings
- Programmable discrete output
- Threshold adjustment
- Analog output

Ordering Information



CNTX-30-0
Advanced Contrast Sensor
3.0mm light spot



CNTX-05-0
Advanced Contrast Sensor
0.5mm light spot

Accessories



UVX-300B
Bracket



UVX-300C
Cable 5P, 5M, M12, F

Functions

NORMAL OPERATING MODE
SENSITIVITY
THRESHOLD
LED INTENSITY
HYSTERESIS LEVEL
DISCRETE OUTPUT
OUTPUT PULSE STRETCH
SECURITY
TEACH MODE

Displays relative reflection intensity
 X1 and X10
 Set detection level
 Set LED, LO, MED, HI
 Set undetect level 1-9 steps below threshold
 Set normally open or normally closed
 Set minimum output period 10...90ms
 Lock/unlock pushbutton controls
 Auto-set detection threshold

Specifications

White light source	Broad spectrum LED, min. 100,000 hours	Indicators	LED
Sensing distance	28mm	7-Segment display	Power
Spot size	0.5mm or 3.0mm dia.	Green LED	Detect
Depth of field	+/- 3mm	Red LED	Program
Response time	25uS	Yellow LED	
Switching Frequency	40kHz	Connector M12	
LED intensity	3 levels	Pin 1	Power to 24VDC
Relative intensity display range	00 to 50	Pin 2	Discrete output PNP/NPN NO/NC
Sensitivity	1X, 10X	Pin 3	Ground
Signal level	Two 7 segment digits	Pin 4	Analog output 0 to 5V DC
Detection threshold	Two 7 segment digits	Pin 5	Remote LOCK/ UNLOCK input
Digital Output	Auto-Detect NPN / PNP		
Output Function	NO/NC selectable		
Security	LOCK/UNLOCK keypad		
Power indicator	Green LED		
Detect indicator	Red LED		
Programming indicator	Yellow LED		
Data retention	EEPROM non-volatile memory		
Dimensions	2.0" (51mm) x 2.4" (61mm) x 1.0" (25mm)		
Weight	0.21 lbs. (95g)		
Supply Voltage	10-24 VDC		
Operating Current	60 mA		
Short Circuit Protection	Discrete output		
Overload / Reverse Polarity Protection	Supply voltage		
Operating temperature	-20°C...55°C		
Storage temperature	-20°C...70°C		
Housing	Metal alloy		
Mechanical Protection	IP65 NOT FOR PRESSURE WASH DOWN		

WARRANTY EMX INC. the product described herein for a period of 2 years under normal use and service from the date of manufacture. The product will be free from defects in material and workmanship. This warranty does not cover ordinary wear and tear, abuse, misuse, overloading, altered products, or damage caused by the purchaser from incorrect connections, or lightning damage. There is no warranty of merchantability. There are no warranties expressed, implied or any affirmation of fact or representation which extend beyond the description set forth herein. EMX Inc. sole responsibility and liability, and purchaser's exclusive remedy shall be limited to the repair or replacement at EMX's option of a part or parts not so conforming to the warranty. In no event shall EMX Inc. be liable for damages of any nature, including incidental or consequential damages, including but, not limited to any damages resulting from non-conformity defect in material or workmanship.